

What is claimed is:

1. An apparatus for transferring heat from a used coolant flow to a source coolant flow comprising:

at least one regenerative heat exchanger, wherein at least a portion of said source coolant flow is passed through said heat exchanger; and

a valve to direct a portion of said used coolant flow to said at least one regenerative heat exchanger;

wherein the amount of used coolant flow directed to said at least one heat exchanger is determined by the temperature of said source coolant flow;

wherein heat in said used coolant flow is transferred to said source coolant flow;

wherein said used coolant flow and said source coolant flow are not substantially in physical contact.

2. The apparatus of claim 1, wherein flow rate of said used coolant flow is controlled by a flow control valve.

3. The apparatus of claim 1, wherein the amount of used coolant flow directed to said at least one heat exchanger is controlled by a three-way valve.

4. The apparatus of claim 1, wherein the portion of said source coolant flow that is passed through said heat exchanger is controlled by a three-way valve.

5. The apparatus of claim 1, wherein said at least one heat exchanger comprises a plurality of heat exchangers.

6. The apparatus of claim 5, wherein an amount of said used coolant flow is separately directed through each of said plurality of heat exchangers.

7. The apparatus of claim 5, wherein an amount of said source coolant flow is separately directed through each of said plurality of heat exchangers.

8. The apparatus of claim 1, wherein said source coolant and said used coolant are water.

9. The apparatus of claim 8, wherein said source coolant is drawn for a natural source.

10. A coolant system comprising:

a source coolant drawing from a natural source;

a source coolant channel, wherein said source coolant channel draws said source coolant to create a source coolant flow;

a machine assembly, wherein said source coolant flows through a first heat exchanger in said machine assembly and cools said machine assembly, wherein a used coolant flow is produced; and

a regenerative heat exchanger that accepts at least a portion of said source coolant flow, and wherein at least a portion of said used coolant flow is directed into said regenerative heat exchanger;

wherein the heat of said used coolant flow is greater than the heat of said source coolant flow;

wherein heat from said used coolant flow is transferred to said portion of said source coolant flow;

wherein said portion of said source coolant flow is then merged back into said source coolant flow prior to entering said machine assembly.

11. A method for transferring heat from a used coolant flow to a source coolant flow comprising:

directing a portion of said source coolant flow to at least one heat exchanger; and

routing a portion of said used coolant flow to said at least one heat exchanger;

wherein heat from said used coolant flow is transferred to said source coolant flow;

wherein said used coolant flow and said source coolant flow are not substantially in physical contact.

12. The method of claim 1, wherein the flow of said used coolant flow is controlled by a flow control valve.

13. The method of claim 1, wherein the amount of used coolant flow directed to said at least one heat exchanger is controlled by a three-way valve.

14. The method of claim 1, wherein the portion of said source coolant flow that is passed through said heat exchanger is controlled by a three-way valve.

15. The method of claim 1, wherein said at least one heat exchanger comprises a plurality of heat exchangers.

16. The method of claim 15, wherein an amount of said used coolant flow is separately directed through each of said plurality of heat exchangers.

17. The method of claim 15, wherein an amount of said source coolant flow is separately directed through each of said plurality of heat exchangers.

18. The method of claim 1, wherein said source coolant and said used coolant are water.

19. The method of claim 18, wherein said source coolant is drawn for a natural source.